



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

646.3311

Job Sheet 206324



Part No: 646.3311

Job Qty: 20 pcs

Part Name: RH Half - Upper Cutter Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/29/20

Job Tracking No:

Due Date: 3/9/20

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV A IPP REV:A NEW ISSUE 12/11/27 JFS VERIFY BY: JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
110	HAAS 4 Axis	20 pcs	3/9/20	3/9/20	0.59	26.32	HAAS - 1	20/04/20
							HAAS - 2	
							HAAS - 3	
							HAAS - 4	
120	QC 2	20 pcs	3/9/20	3/9/20	0.00	0.00	QC 2 - 1	J.C. 20/04/20
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	
							QC 2 - 8	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S277128



Part: 646.3311

Job No: 206324

Serial No/Batch: S277128

Revision: Rev A

Inspector:

Exp Date:

Instructions: Various STC's

Date: 05/12/20

Plex 1/29/20 10:19 AM Dart.lajeunesse.marie

					QC 2 - 66	
					QC 2 - 64	
					QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 2 - 73	
					QC 2 - 69	
					QC 2 - 76	
130	QC 8	20 pcs	3/9/20	0.00 0.00	QC 8 - 12	
					QC 8 - 14	
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
					QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	
					QC 8 - 67	
					QC 8 - 1 (A)	
					QC 8 - 47	
					QC 8 - 40	
					QC 8 - 52	
					QC 8 - 23	
					QC 8 - 57	
					QC 8 - 76	
					QC 8 - 61	
140	Outsource - 4 - Anodize	20 pcs	3/9/20		ATG001-VC	8
150	Packaging 2-1 - Receive - B4B	20 pcs	3/9/20	0.00 0.00	Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Plex 1/29/20 10:19 AM Dart.lajeunesse.marie	

					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
					Packaging 2 - 27 - B4B	
					Packaging 2 - 28 - B4B	
					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
					Packaging 2 - 37 - B4B	
155	QC 6	20 pcs	3/9/20	0.00 0.00	QC 6 - 9	
					QC 6 - 68	
					QC 6 - 61	DAS
					QC 6 - 40	81
					QC 6 - 81	9-89
						JUL 23 2020
180	Packaging 3-1 - Stock - B4B	20 pcs	3/9/20	0.00 0.00	Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	
					Packaging 3 - 11 - B4B	
					Packaging 3 - 12 - B4B	
					Packaging 3 - 13 - B4B	
					Packaging 3 - 14 - B4B	
					Packaging 3 - 15 - B4B	
					Packaging 3 - 16 - B4B	
					Packaging 3 - 17 - B4B	
					Packaging 3 - 18 - B4B	
					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
					Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
					Packaging 3 - 37 - B4B	
190	QC 21 - SA	20 pcs	3/9/20	0.00 0.00	QC 21 - SA - 21	DAS
					QC 21 - SA - 70	21
					QC 21 - SA - 53	9-85
						JUL 24 2020

Part Op 110 - (HAAS CNC Vertical Machine) 1-Machine per folio FB154

Descriptions: 120 - (QC2- Inspect parts off machine FAI/FAIB)

130 - (QC8- Inspect parts - second check)

140 - Outsource4 (Outsource process-Anodize per QSI017 4.1.10.1) Issue P/O to ATG : 46711

150 - (Receive & Inspect for Damage & Mat'l Certs)

155 - (QC6- All purchased or subcontracted products)

180 - (Identify as per dwg & Stock Location: _____) ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

190 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M7075T6S2.000X7.000	7075-T6S Sheet 2" Thick Plate X 7" Wide (Order In Billets - 13.375")	22.3000 ft (1.115 ea)	110-HAAS 4 Axis	8259264

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-HAAS 4 Axis	M7075T6S2.000X7.000	22	18	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	RH Half	7.296inches $\pm$ 0.005	7.301 7.291		7.294
2	RH Half	3.767inches $\pm$ 0.005	3.772 3.762		3.767
3	RH Half	0.457inches $\pm$ 0.005	0.462 0.452		0.457
4	RH Half	0.313inches $\pm$ 0.005	0.318 0.308		0.313
5	RH Half	0.710inches $\pm$ 0.005	0.715 0.705		0.708
6	RH Half	6.469inches $\pm$ 0.005	6.474 6.464		6.466
7	RH Half	10.116inches $\pm$ 0.005	10.121 10.111		10.114
8	RH Half	10.309inches $\pm$ 0.005	10.314 10.304		10.307
9	RH Half	0.177inches + 0.005 - 0.001	0.182 0.176	diameter	0.177
10	RH Half	0.209inches + 0.005 - 0.001	0.214 0.208	diameter	0.209
11	RH Half	0.250inches $\pm$ 0.005	0.255 0.245		0.250
12	RH Half	1.250inches $\pm$ 0.005	1.255 1.245		1.251
13	RH Half	0.125inches $\pm$ 0.005	0.130 0.120	Radius	0.125
14	RH Half	3.513inches $\pm$ 0.005	3.518 3.508		3.510
15	RH Half	8.375inches $\pm$ 0.005	8.380 8.370		8.377
16	RH Half	0.250inches $\pm$ 0.005	0.255 0.245		0.252
17	RH Half	8.100Degrees $\pm$ 0.500	8.600 7.600	Angle	8.1
18	RH Half	11.689inches $\pm$ 0.005	11.694 11.684		11.688
19	RH Half	11.250inches $\pm$ 0.005	11.255 11.245		11.247
20	RH Half	0.200inches $\pm$ 0.005	0.205 0.195		0.198
21	RH Half	45.000Degrees $\pm$ 0.000	45.000 45.000	Angle	45°

Entered: _____ Date: _____



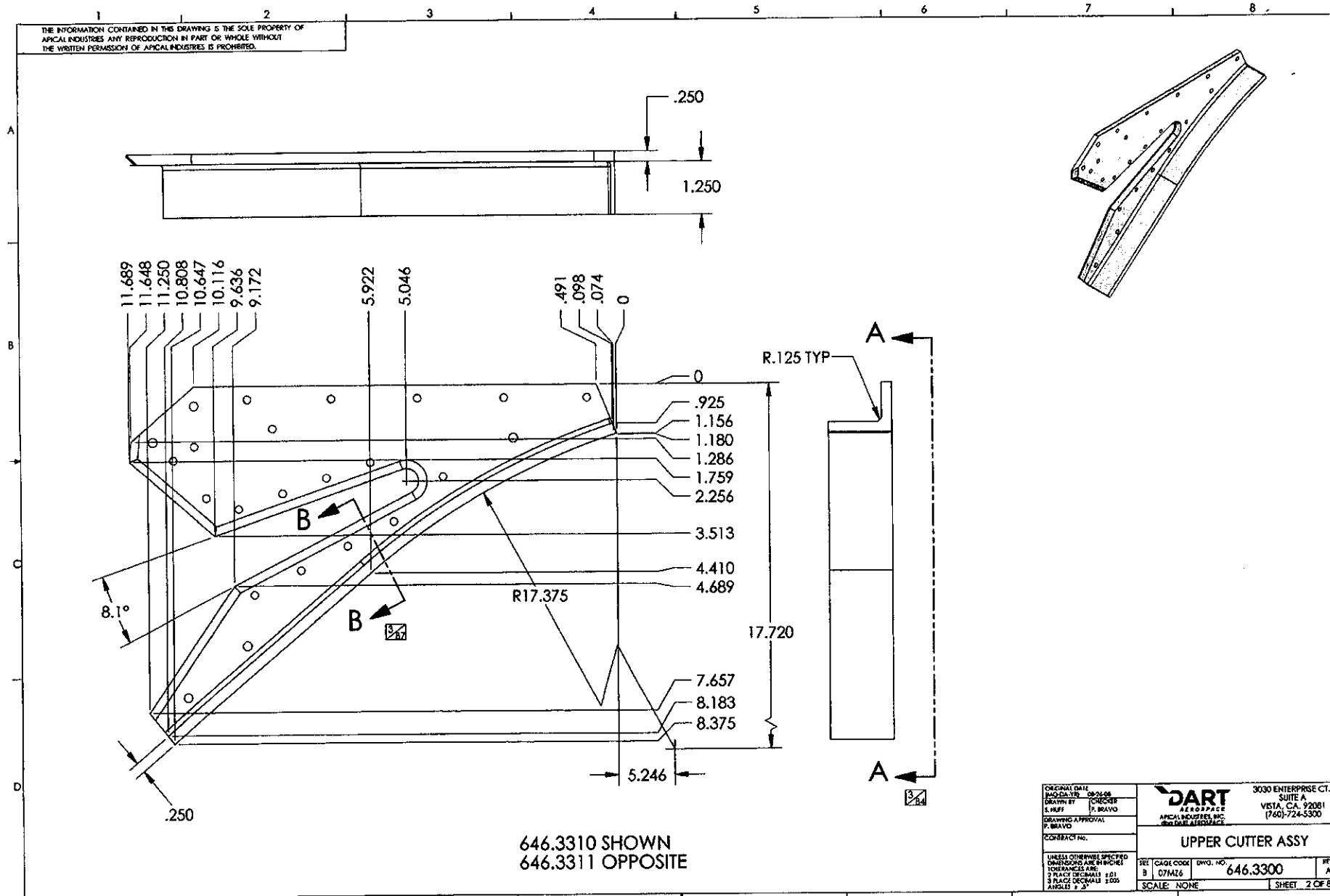
WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

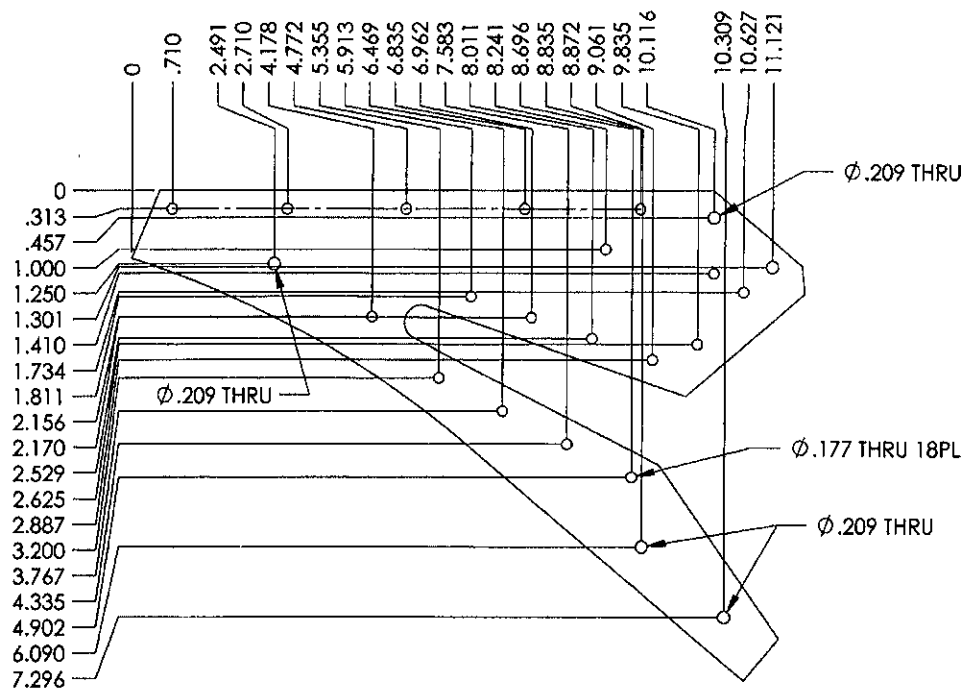
Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

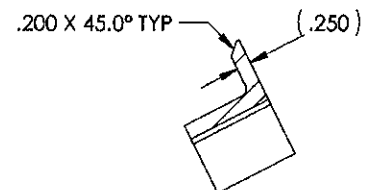


ORIGINAL DATE: 08-26-04		3030 ENTERPRISE CT., SUITE A	
DESIGNED BY: T. HUFF		VISTA, CA 92081	
DRAWN BY: S. HUFF		(760) 724-5300	
CHECKED BY: P. BRAVO		APICAL INDUSTRIES, INC.	
DRAWING APPROVAL: P. BRAVO		646.3310 UPPER CUTTER ASSY	
CONTRACT NO.:		REV. A	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 2 PLACE DECIMALS .125 3 PLACE DECIMALS .005 ANGLES .1°		SCALE: NONE	
SHEET: 2 OF 8		SHEET: 2 OF 8	

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SECTION A-A



SECTION B-B

ORIGINAL DATE 08/24/00	3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300
DRAWN BY S. HUFF	APICAL INDUSTRIES INC. APICAL INDUSTRIES
CHECKED BY P. BRAVO	
DRAWING APPROVAL	
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .001 3 PLACE DECIMALS .0005 ANGLES ± .5°	UPPER CUTTER ASSY
SHEET 8	CAGE CODE 079426
DWG. NO. 646.3300	REV. A
SCALE NONE	SHEET 3 OF 8



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046711



Supplier: ATG001-VC
A.T.G. Industries Inc
760 INDUSTRIELLE STREET
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB046711

PO Date: 7/9/20

Due Date: 7/17/20

Purchase Order

Revision:

Revision Date:

Issued By: Guerin, Kimberley
Phone: 613-632-5200 Ext: 298
kguerin@dartaero.com

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

E-MAILED
2020-07-15

Items

Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	206324	646.3311	646.3300 Rev A	RH Half - Upper Cutter Assembly : Various STC's Outsource4 (Outsource process- Anodize per QSI017 4.1.10.1) Issue P/O to ATG :	Firmed -		7/17/20	20 pcs	0 pcs	20 pcs	\$19.23/pcs	\$384.60



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB046711



Items												
Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
2	209025	649.4816	649.4800 Rev E	Doubler : Various STC's Issue P/O to ATG: AS PER MPP- 172 SECTION 2.1, HARD ANODIZE COLOR BLACK, PER IAW MIL-A- 8625 TYPE 3 CLASS 2 AS PER MPP- 172 SECTION 4.2, PRIME AS PER IAW MIL- PRF-23377 TYPE 1 CLASS N Certification of Conformity is required	Firmed	-	7/17/20	13 pcs	0 pcs	13 pcs	\$31.14/pcs	\$404.82
3	210969	D4970-3	D4970 Rev C	Windshield Deflector - Upper : Certificate of Conformity Only Issue P/O to ATG : Hard Anodize, Color Black and Prime as per Dwg D4970 Rev. C	Firmed	-	7/17/20	1 pcs	0 pcs	1 pcs	\$35.89/pcs	\$35.89
	208886				Firmed	-	7/17/20	2 pcs	0 pcs	2 pcs	\$35.89/pcs	\$71.78
Sub Total:								3	0	3		\$107.67



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

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PURCHASE ORDER

POHB046711



Items												
Line Item	Job	Part	Drawing	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	210650	D4970-5	D4970 Rev C	Doubler : Certificate of Conformity Only Issue P/O to ATG : FINISH: HARD BLACK ANODIZE AS PER IAW MIL- A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL- P-23377J TYPE 1 CLASS N	Firmed	-	7/17/20	10 pcs	0 pcs	10 pcs	\$7.88/pcs	\$78.80
Grand Total:												\$975.89

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

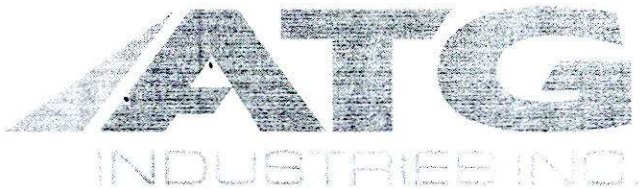
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/15/20 10:31 AM Dart.Guerin.Kimberley



A.T.G. Industries Inc.
760 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Pack List

Number: 920499

Date: 10-Jul-20

Ship To

Kimberley Guerin
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		ATG Delivery	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
18 ea ✓	Part: 646.3311 RH Half Upper Cutter Assembly Hard Black Anodize per MIL-A-8625F, Type III, Class2, .0005-.0045" (5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Batch/Lot# 131132 Job: 27820 PO: POHB046711	Rev: A	Expiry Date: 8/21 Line: 1
3 ea ✓	Part: D4970-3 Windshield Deflector - Upper Hard Black Anodize per MIL-A-8625F, Type III, Class2, .0005-.0045" (5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (.1 - .2 mils) per drawing. Batch/Lot# 131132 Job: 27822 PO: POHB046711	Rev: C	Expiry Date: 8/21 Line: 3
10 ea ✓	Part: D4970-5 Doubler Hard Black Anodize per MIL-A-8625F, Type III, Class2, .0005-.0045" (5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Batch/Lot# 131132 Job: 27823 PO: POHB046711	Rev: C	Expiry Date: 8/21 Line: 4

Made in Canada

RECEIVED

JUL 16 2020

DART AEROSPACE LTD.

DAS
81
9-89

16077070



A.T.G. Industries Inc.
760 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 920499

Date: 16-Jul-20

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Kimberley Guerin
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		ATG Delivery	
Quantity	Description		
	CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>JUL 16 2020</u> Certified Signature: _____ Receiver Signature: _____ A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.		
DAS 81 9-89			
Made in Canada.			